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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,132	03/26/2004	Sigmund Frigstad	135270 (553-1044)	8833
45436	7590	10/28/2009	EXAMINER	
DEAN D. SMALL THE SMALL PATENT LAW GROUP LLP 225 S. MERAMEC, STE. 725T ST. LOUIS, MO 63105			CWERN, JONATHAN	
			ART UNIT	PAPER NUMBER
			3737	
			NOTIFICATION DATE	DELIVERY MODE
			10/28/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docket@splglaw.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/810,132	<b>Applicant(s)</b> FRIGSTAD ET AL.	
	<b>Examiner</b> Jonathan G. Cwern	<b>Art Unit</b> 3737	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 July 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 7-15, 17, 18, 21-27 and 29-35 is/are pending in the application.
- 4a) Of the above claim(s) 21-27, 29 and 33-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-15, 17, 18 and 30-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of Group I, claims 1-4, 7-15, 17-18, and 30-32, in the reply filed on 7/28/09 is acknowledged.

Claims 21-27, 29, and 33-35 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 7/28/09.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4, 7-15, 17-18, and 30-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 1 and 12, the claims first set forth, "at least one of standard values and measured values", indicating that either can be contained in the data. However, later in the claims, a comparison is done between both new patient data and the standard values, and new patient data with the measured values. Thus, both are required, although the at least one of statement above indicated only one was required. Thus, these limitations are conflicting.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 12-15 and 17-18 are rejected under 35 USC 101 as being directed to non-statutory subject matter because these are method or process claims that do not transform underlying subject matter (such as an article or materials) to a different state or thing, nor are they tied to another statutory class (such as a particular machine). See *Diamond v. Diehr*, 450 U.S. 175, 184 (1981) (quoting *Benson*, 409 U.S. at 70); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978) (citing *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876)). See also *In re Comiskey*, 499 F.3d 1365, 1376 (Fed. Cir. 2007) (request for rehearing *en banc* pending).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7-14, 17-18, and 30-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Lemelson et al. (US 5878746).

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Lemelson et al. show, diagnostic equipment to acquire and analyze new patient data (column 2, lines 6-61); a database of past patient data sets (standard image stored in fact database, column 7, lines 1-30); a network for interconnecting said diagnostic equipment and a database (the diagnostic equipment and the database are inherently connected, this connection can be called a “network”; also this interaction occurs in “real-time”, as real-time can be any time, and interconnected facilities can be the database and diagnostic equipment itself); a controller for accessing the database based on the new patient data (column 2, lines 55-60) and providing automated instructions, wherein the diagnostic equipment compares new and past patient data to determine whether additional information is needed (column 3, line 62-column 4, line 8). Also, highlighting abnormalities in an a new image (feature extractor can extract tumors (abnormalities) from the image, by extracting the feature, the feature is thus “highlighted”; examiner would further like to point out the definition of “highlight” which is “to attract attention to or emphasize something important”, this is accomplished by extracting the tumor feature, column 6, lines 27-58). Also, the diagnostic equipment acquires ultrasound images (column 2, line 12); can identify the size of the heart (column 8, lines 50-52); comparing new and past patient data, as well as new data to standard data (column 7, lines 1-28); and identifying matches between new and past data (column 6, lines 45-50). The presence of past patient data indicates that the data was previously stored.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 7-14, 17-18, and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemelson et al. (US 5878746) in view of DiFilippo et al. (US 2002/0164059).

Lemelson et al. show, diagnostic equipment to acquire and analyze new patient data (column 2, lines 6-61); a database of past patient data sets (standard image stored in fact database, column 7, lines 1-30); a network for interconnecting said diagnostic equipment and a database (the diagnostic equipment and the database are inherently connected, this connection can be called a “network”; also this interaction occurs in “real-time”, as real-time can be any time, and interconnected facilities can be the database and diagnostic equipment itself); a controller for accessing the database based on the new patient data (column 2, lines 55-60) and providing automated instructions, wherein the diagnostic equipment compares new and past patient data to determine whether additional information is needed (column 3, line 62-column 4, line 8). Also, highlighting abnormalities in an a new image (feature extractor can extract tumors (abnormalities) from the image, by extracting the feature, the feature is thus

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"highlighted"; examiner would further like to point out the definition of "highlight" which is "to attract attention to or emphasize something important", this is accomplished by extracting the tumor feature, column 6, lines 27-58). Also, the diagnostic equipment acquires ultrasound images (column 2, line 12); can identify the size of the heart (column 8, lines 50-52); comparing new and past patient data, as well as new data to standard data (column 7, lines 1-28); and identifying matches between new and past data (column 6, lines 45-50). The presence of past patient data indicates that the data was previously stored.

While it is believed that Lemelson et al. show all of the claim limitations, even assuming that Lemelson et al. do not show comparing the new data to measured data from previously analyzed patient's, this is old and well known in the art.

DiFilippo et al. disclose a remote medical image analysis system. DiFilippo et al. teach a comparison of past patient data accumulated in a database ([0036]). Also, that images can be highlighted by coloring regions ([0034]-[0037]).

It would have been obvious, at the time the invention was made, to have compared the newly acquired patient data with measured data acquired from previous patients as taught by DiFilippo et al. in the system of Lemelson et al. Lemelson shows comparing the new data to data previously acquired from the patient or to standard data, and it would be obvious to compare the new data to any other available data which would yield a more accurate diagnosis, such as data acquired from previous patients.

Claims 4 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemelson et al. (US 5878746) in view of DiFilippo et al. (US 2002/0164059) as applied to claim 1 and 12 above, and further in view of Brady et al. (US 7200612).

Brady et al. disclose a system for processing data for interpretation. Brady et al. teach accessing the database based on wall velocity values (column 4, lines 1-10).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have accessed the database based on wall velocity values as taught by Brady et al., in the combined system of Lemelson et al. and DiFilippo et al. Wall velocity values are typically used to analyze the heart, such as to derive the position of the heart, and are clinically significant.

Claims 4 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemelson et al. (US 5878746) in view of Brady et al. (US 7200612).

Lemelson et al. show, diagnostic equipment to acquire and analyze new patient data (column 2, lines 6-61); a database of past patient data sets (standard image stored in fact database, column 7, lines 1-30); a network for interconnecting said diagnostic equipment and a database (the diagnostic equipment and the database are inherently connected, this connection can be called a “network”; also this interaction occurs in “real-time”, as real-time can be any time, and interconnected facilities can be the database and diagnostic equipment itself); a controller for accessing the database based on the new patient data (column 2, lines 55-60) and providing automated instructions, wherein the diagnostic equipment compares new and past patient data to



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determine whether additional information is needed (column 3, line 62-column 4, line 8). Also, highlighting abnormalities in an a new image (feature extractor can extract tumors (abnormalities) from the image, by extracting the feature, the feature is thus "highlighted"; examiner would further like to point out the definition of "highlight" which is "to attract attention to or emphasize something important", this is accomplished by extracting the tumor feature, column 6, lines 27-58). Also, the diagnostic equipment acquires ultrasound images (column 2, line 12); can identify the size of the heart (column 8, lines 50-52); comparing new and past patient data, as well as new data to standard data (column 7, lines 1-28); and identifying matches between new and past data (column 6, lines 45-50). The presence of past patient data indicates that the data was previously stored.

Brady et al. disclose a system for processing data for interpretation. Brady et al. teach accessing the database based on wall velocity values (column 4, lines 1-10).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have accessed the database based on wall velocity values as taught by Brady et al., in the system of Lemelson et al. Wall velocity values are typically used to analyze the heart, such as to derive the position of the heart, and are clinically significant.

### ***Response to Arguments***

Applicant's arguments filed 3/31/09 have been fully considered but they are not persuasive.

In regards to applicant's arguments regarding the 101 rejection, examiner respectfully disagrees. Applicants indicate that there must be some machine inherently to analyze the patient to obtain the patient data. However, this machine is not sufficient to pass the machine or transformation test, as it is merely used for data gathering. It is the machine which is performing the comparing steps which should be included in the claim to pass the machine test (possibly a processor of some sort). The steps of comparing in the claim can be achieved by a human simply thinking in their head.

In regards to applicant's arguments that the references do not show comparing new patient data with past measured patient data and standard data, examiner respectfully disagrees. These limitations are met by both Lemelson et al. and DiFilippo et al. These limitations are also old and well known in the art. Merely comparing new and old data is not a novel concept.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan G. Cwern whose telephone number is (571)270-1560. The examiner can normally be reached on Monday through Friday 9:30AM - 6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jonathan G Cwern/  
Examiner, Art Unit 3737

/BRIAN CASLER/  
Supervisory Patent Examiner, Art  
Unit 3737